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CONTRIBUTIONS TO SOCIAL PHILOSOPHY. II.

SOCIOLOGY AND COSMOLOGY.

THIS is not a "chance world," but a world of law. Both science and philosophy teach that every fact and every phenomenon is indissolubly linked to every other and that change is the result of some antecedent change and the occasion of some subsequent change. Any conceivable fact or thing may therefore be regarded as a term in a series which is infinite in both directions. In science this is called the law of causation; in philosophy it is called the law of the sufficient reason.

A feeble and imperfect recognition of this law has led many minds to a very erroneous conclusion, a conclusion which is, if possible, worse in its practical effect upon human thought and action than would have been the belief in a purely chance world. It has led to a false idea of the relation of man to the universe. Indeed it is responsible for the two false theories which have most retarded the true progress of mankind, viz., optimism and pessimism.

Man is correctly to be regarded as simply one of terms in the great cosmical series, the product of antecedent causes and the cause of subsequent effects, and until he is so understood the true relation either of man to the universe or of sociology to cosmology cannot be correctly known. Man's place in the organic series will be the subject of the next paper. The more general question only of his relation to the world at large can be considered here. The first important fact to be noted is that to his slowly developing intellect the universe has ever been a great enigma. To solve this enigma has been the universal problem of the human mind. But man has been put into possession of no key to this solution and has attacked the problem wildly and at random, utterly unqualified to make the least impression upon it. The book of nature which was open to him was but a collec-

tion of Sibylline leaves that had been first stirred by the wind. Not only were things not always as they seemed, but outside of the very simplest phenomena, everything was utterly different from what it seemed. Almost everything was really just the reverse of what it seemed, and the universe was a vast paradox. The sky seemed to be a great vault of solid matter which he called for this reason a "firmanent." The heavenly bodies seemed to move across this vault at varying rates, and their reappearance led to the notion that they revolved around the great level cake of earth and water on which he dwelt. The invisible air and other gases were likened to mind or spirit. All natural causes were explained after the analogy of human effort in the intentional production of effects, and the earth and air were peopled with invisible and often malignant spirits as the only recognized agents. And thus were built up great systems of magic, superstition and mythology. The errors thus forced into man's mind came to receive the sanction of religion which rendered it vastly more difficult to dislodge them. This herculean task has been the mission of science, for the truth lies deeply buried under this mass of error at the surface and can only be brought to light by the most prolonged and patient research in the face of this time-honored prejudice. The progress of man and society has been strictly proportioned to the degree to which hidden realities have thus been substituted for false appearances.

As a somewhat anomalous but very important example of the erroneous ideas which the human race must needs acquire and reluctantly surrenders may next be considered the optimistic habit of thought. Optimism can scarcely be called a doctrine. It does not result, like most erroneous beliefs, from a false interpretation of the facts which nature presents to the untrained faculties. It is rather the original, unreflective state of the pre-social mind. It is the survival of the most useful of all instincts, that of self-preservation. It was well adapted to that state, because to the animal it mattered not whether it was true or false. It is still a useful attitude to the swarming millions of human beings who do not reflect. But for it the realization of their

unhappy lot, which it prevents, would multiply their misery and render life intolerable. But we are here considering its effect upon society, and it is easy to show that it is bad. It breeds stagnation and stifles progress. It yields contentment and contentment means inaction. Strange as it may sound, just as the only healthy state of the intellect is doubt, so the only healthy state of the feelings is discontent. This of course assumes that there is something to doubt and something to improve, but there has never been an age when error did not stalk abroad or when misery was not the lot of the greater part of mankind.

The phase of optimism which most concerns the question of the relation of society to the universe is that unreasoned belief which I have called the "anthropocentric theory."^{*} The idea that man is in any sense a favorite of nature is false and highly prejudicial to the progress of correct conceptions in social science. It may be called collective optimism, and results in social stagnation, just as personal optimism results in individual stagnation.

The extreme opposite of optimism is pessimism. It differs from it as much in its origin and nature as it does in its character as a belief. While optimism is wholly unreasoned and springs from the feelings, pessimism is exclusively a product of reason and resides in the intellect. Optimism is that hope that "springs eternal in the human breast" and defies the hard facts of existence. Pessimism recognizes the facts and coldly chokes every hope at its birth. But pessimism is also false, first because many hopes are realized, and secondly, because the representation in the present of the good anticipated in the future is itself a good at least of secondary order.

What then is man's true relation to the universe? Is there a true mental attitude that lies between these two false attitudes? There certainly is. It is not a belief or a creed; it is the simple recognition of the truth. The truth is that nature is neither friendly nor hostile to man; neither favors him nor discriminates against him. Nature is not endowed with any moral attributes.

^{*} Transactions of the Anthropological Society of Washington, Vol. I, Washington, 1882, pp. 93-103; *Dynamic Sociology*, New York, 1883, pp. 50-73.

It is, as I said at the outset, a domain of rigid law. Man is a product of that law, but he has reached a stage on which he can comprehend the law. Now, just because nature is a domain of rigid law, and just because man can comprehend that law, his destiny is in his own hands. Any law that he can comprehend he can control. He cannot increase or diminish the powers of nature, but he can direct them. He can increase or diminish the amount of power that is to be exerted at any given point. He can focalize the rays of the sun; he can divert the courses of the rivers; he can direct the currents of the air; he can vary temperatures; he can change water to steam and set the steam to work in propelling machinery or ships or railroad trains; he can utilize electricity. His power over nature is unlimited. He can make it his servant and appropriate to his own use all the mighty forces of the universe.

Both optimism and pessimism are passive states of mind. The true state is an active one. Optimism and pessimism assume nature to be in an active state toward man. The true attitude makes nature passive and man active. To the developed intellect nature is as clay in the potter's hands. It is neither best nor worst. It is what man makes it, and rational man always seeks to make it better. The true doctrine, then, is *meliorism*—the perpetual bettering of man's estate. This will be possible in precise proportion to man's knowledge of nature, so that the condition of the race ultimately depends upon the degree of intelligence that it shall attain.

Optimism may be said to be the thesis, pessimism the antithesis, and meliorism the synthesis of man's relation to the universe. The optimist says: Do nothing, because there is nothing to do. The pessimist says: Do nothing, because nothing can be done. The meliorist says: Do something, because there is much to do and it can be done.

Man alone can block the wheels of his own progress. Neither optimism nor pessimism can be justified in a state of society where free play is allowed to all the human faculties. For a race whose intellect is fully matured these mental attitudes are only

adapted to a condition of profound ignorance of the laws of nature, or of complete subjugation of the masses to the power of the few. Now, it is a historical fact that these two habits of thought have, in the élite of mankind, only prevailed under one or the other or both of these conditions. Optimism is preeminently the child of ignorance. By ignorance I mean solely the absence of knowledge relative to natural things, processes, and laws, and not lack of capacity to know these things and profit by such knowledge. Pessimism is more especially a product of social oppression. It results from an abandonment of all hope of relief from the power of a superior caste of men to keep the mass in physical subjection. In a word, pessimism is the product of a hostile social state.

It is impossible to separate this aspect of the question from the great fact that the world has always been swayed by religion. The foregoing considerations furnish an excellent basis for comparing the great religions that have embraced the greater part of the human race. Religion is reason applied to life. Those who flippantly contend that a religious condition argues feeble intellectual powers make an immense mistake. But this view is by no means confined to the opponents of religion. It is clearly implied or openly expressed by many who strongly defend it. The latest of this class of philosophers is perhaps Mr. Benjamin Kidd. In his *Social Evolution* he makes religion the mainspring of human progress and charges the reason with anti-social and anti-progressive tendencies. Whatever there may be true in his book, and its tone is generally healthy, it is not true, as he maintains, that religion and reason are opposed, or that religion proceeds from an unreasoning, or, as he expresses it, an "ultra-rational" sanction. Religion is rational through and through. It is not to be compared to an instinct, such as both animals and men possess, adapted to produce such automatic activities as result in the safety and healthy development of races. On the contrary, it often and usually impels man to do just those things which his instincts and his natural propensities would never dictate. It counteracts the animal nature of man, and is one of

those things which distinctively mark him off from the animal world. It could be easily shown that this is precisely the rôle that reason plays everywhere, and it is the failure to perceive this that has led many political economists and others into the gravest of errors in philosophizing about man.

Religion has its very origin in reason. No animal has developed even the rudiments of a religion. It is an exclusively human institution, much more so than society. It is the product of thought; an attempt to explain the universe. In this, its primary quality, it does not differ in the least from science, and no true philosopher can doubt that these two great human movements, starting out from the same base, will eventually arrive at the same goal.

Now, of the two great religions of the world, using the term in its broadest sense and ignoring entirely the subdivision into sects, that of the East and that of the West, in the modern use of those terms, the former is pessimistic; the latter optimistic. This is because, while both were perhaps equally ignorant of the laws of nature, the inhabitants of India exercised their intellectual powers far more than did the peoples of western Asia and southern Europe. It is also probably true that the conditions of existence for the masses of India under a system of castes were much less favorable than those of western peoples. For these and other reasons religion in the East resulted in pessimism while in the West it took the form of optimism. The Orientals sought to escape the evils of life in Nirvana, which, however much scholars may dispute about its exact meaning, is certainly a wholly negative state. Christians and Mohammedans, on the other hand, espoused the doctrine of immortality, which is a doctrine of hope and promises a state which is intensely positive. With their belief in an ultimate righteous retribution they were able to bear their temporal ills with fortitude and to enjoy whatever good this world had in store for them. Yet because it is in the West that the great civilization of the world at last came forth it will not do to argue that this was the result of an optimistic religion. Scarcely a sign of this was perceptible

during the first fourteen centuries of the Christian era, and the whole of it has been the product of the last five centuries. Civilization as we now understand it is altogether due to the abandonment of the optimistic attitude which prevailed before the Protestant Reformation, and the adoption of the spirit of meliorism, to which Protestantism was more favorable. In fact the Reformation is rather the product than the cause of a growing meliorism, and as soon as liberty of opinion and freedom to investigate the laws of nature were achieved the march of civilization had already begun.

We are now prepared to consider the true relation that developed man in the social state bears to the great cosmos of which he is a part. That cosmos, as we have seen, must be contemplated as wholly unintelligent and wholly passive. Man must regard himself as in full possession of the authority to subjugate it and to appropriate it, to reduce all the powers of nature to his service and to apply all the materials of the universe to his own personal use. Notwithstanding the rigid law to which all things are subject, he is to look upon the universe as in a certain sense fortuitous. While there is a cause for all things there is no intelligent reason why anything should be as it is. That this little planet of ours happens to be peopled with life is merely an accident, or rather the convergence of a number of accidents. So far as can be judged from what we know of the essential conditions to life, the earth is highly favored among the planets of our system, and it may well be that this is the only one out of them all on which the conditions to a high development exist. It seems impossible that the great planets Jupiter and Saturn can be inhabited by any such beings as have been developed on our globe; and careful studies of temperatures that must prevail on Venus and Mercury seem to negative such an assumption for either of them. If Mars possesses life it must be inured to somewhat severer conditions than generally prevail with us, but it is admitted that these do not exclude the idea. If Jupiter radiates his own internal heat he may render some of his swift flying moons inhabitable, but most of the satellites of the solar system

are doubtless as dead as our moon which has neither water nor air. The sun is an enormous mass of matter 1,400,000 times as large as the earth and containing 99.866 per cent. of the matter of the whole solar system. Yet it is known to be in a state of such intense heat that some of the metals which it requires great heat even to melt are not only melted but volatilized. No one therefore conceives that there can be any life or intelligence on the sun. Think of the optimism that is required to make out a favorable case from such facts! Even if all parts of all the planets were inhabited they would together make only $\frac{1}{47}$ part of the area of the sun's surface, while that of the earth alone is only $\frac{1}{12862}$. But our sun is only one of the lesser fixed stars, and it may be assumed that similar conditions prevail throughout the universe.

If we contemplate the earth itself we find an analogous state of things. The period that man has inhabited the earth is very small compared with what we know its age to be. We can scarcely speak more than relatively, but the certainty is as great as if we could fix dates for geologic events. Of the enormous thickness, (150,000 feet) of sedimentary rocks that can be measured from the earliest Archean to the latest Pleistocene those that have been deposited since man made his appearance form only a minute fraction. In quite recent times some attempts have been made to determine approximately in years the age of the earth. The results vary greatly but are constantly growing more uniform. The physicists, astronomers, and geologists, who all use widely different data and methods, and who formerly differed greatly, have latterly come to a much closer agreement, which argues some approach to the truth. Using the most moderate ones, the crust of the earth seems to have been fully formed not less than 100,000,000 years ago. Some form of life has probably existed on it during nearly all that period. But paleontology teaches that life, though slowly increasing in development, was of too low an order to be capable of intelligence until man appeared. Yet what are the estimates of man's entire historic and prehistoric existence? The most extravagant of them do

not go back 500,000 years. More probable ones stop at 200,000. So that man seems to have shared the life of the globe during only one five hundredth part of its developed existence. But even this was nearly all spent in an almost completely animal state. Intelligence never reached the point at which it could furnish a record until within at most 25,000 years of our present epoch, and authentic records are confined to the past forty or fifty centuries. Thus only one fortieth or fiftieth of the little span of man's existence belongs to the age of culture, however rude. And what is there to be said in favor of the condition of the world even at its best? Read human history. As Professor Huxley has said, if nothing better was in store than what we have thus far had we should hail the advent of some friendly comet that should pass along and sweep the whole phantasmagoria out of existence. There is what we call human progress, but what is it but a rhythmic and only partial success in rendering a worse condition a trifle better? Even this is accidental and may go backward instead of forward. There are as many things that retard as there are that advance the race, and human progress, like the "regulator" of a steam engine, seems to be adjusted so as to defeat itself. Much of it is purely accidental. No one will ever know but that the state of civilization would have been a century ago what it is today but for some trifling accident. I once heard a learned and conservative physicist say that Aristotle's teachings had delayed the progress of man's knowledge of the laws of nature a thousand years. What evidence is there that there is any power making for the increase of knowledge? Our acquaintance with the true nature of animals and plants and with man depends largely upon what can be learned of their history throughout past ages of the world. Yet what is the nature of the geological record? Every practical paleontologist knows and always feels that discovery in this field depends upon the merest chance, nay, upon a coincidence of two chances, first, that anything has been preserved, and secondly, that it will ever be found. He labors under the perpetual feeling that the most important of discoveries may in fact never be made, and that he

may be at any time, without knowing it, walking over the keys to the secrets of the universe. And after man acquires great knowledge and power over the universe, so that he can enlist all the forces and materials of nature in his service, the inequalities in individual opportunities, coupled with the intense egoism which has alone enabled the race to survive, practically robs society of the results by placing the masses in the power of the few under which system neither class can really enjoy the fruits of intelligence and industry.

All this may have a pessimistic sound. In fact it constitutes the contribution that pessimism has made to social philosophy. It has taught us to open our eyes, to look the facts in the face, to listen to no siren song, to see and bravely acknowledge the truth of man's condition and his relation to the universe. So long as we do not exaggerate, so long as these relations, however bad, are the true relations, no possible harm can come of knowing and realizing the truth. It is the only healthy attitude, while on the other hand, the ignorance of this truth or the refusal to avow it is fatal to progress. But it will not do to stop here. It is not enough merely to learn that things are bad. The two errors of pessimism have been, first, that of overdrawing the picture, and second, that of failing to learn the lesson which the picture teaches.

Having tried to paint the picture true to life, let us next inquire what the lesson is that we should learn from its careful study. The first and most elementary principle of that lesson is that the very fortuity from which this entire state of things results is laden with the highest hopes for mankind; that no other condition could furnish any such ground for hope; that the opposite or optimistic view, were it the true one, would really lead to despair. The optimist may be compared to a young man without employment or means of subsistence who lives in the perpetual and illusive hope that some rich relative or acquaintance may bequeath him a fortune. Contrasted with this, the meliorist may be likened to a young man who, recognizing the truth that unearned fortunes are not given to idle adventurers, goes reso-

lutely to work and strives by honest industry to build up a fortune for himself. And this is the true lesson for human society. There is no room for social Micawbers. Whatever "turns up" must be turned up. The passive attitude is suicidal. This folding of the arms and resignation to fate is certain to meet its fate. The cosmic Juggernaut will roll over and crush those who throw themselves before it. The logic of science is action, and only by busy brains and busy hands can the recognized evils of the world be lessened or removed.

The second principle in this great lesson is that it is only because all nature is a domain of rigid law, of absolute impartiality, and devoid of all moral quality and all intelligence, that man can hope to carve out of it his fortune or shape his destiny. If it had sympathies and preferences and prejudices; if it had intelligence and will, it would be utterly unmanageable and would ever remain the master and despot of man, as it practically has been during most of his early history, and it could never become his servant and all-powerful aid and ally as it is fast getting to be and is certain ere long fully to become. Thus the hardest facts of existence are seen to embody the germs of the brightest hopes. Those dark realities which have been taken as arguments for pessimism, are themselves, when correctly understood, the foundations of the only sound philosophy of social progress.

The only proper attitude on all these questions is to view the universe objectively. Dismissing forever all idea of what it ought be, we must simply seek to determine what it is. We must also divest ourselves wholly of the notion that we can determine this by pure reflection. There is no fixed way in which things must be which enables us to reason out the way they are. While, of course, the way they are is really the only way they could have been, still the antecedent causes which have brought them into existence, besides being unknown to man, are so infinitely complex that they are for the most part wholly beyond his grasp. For example, anyone can conceive of a solar system in which no single relation is the same as exists in ours. Anyone can conceive of beings inhabiting a planet all of which shall

be entirely different from any of those that inhabit this earth. The plan of structure of organic forms depends entirely upon the initiative which first launched each type upon its career. This initiative is wholly fortuitous. The vertebrate type of animals, for example, must be looked upon as due to some primordial accident, as it were, i. e., some coincidence of causes, external and internal, at the appropriate time and place, that happened to determine that type of structure which proved better adapted to sustain the highest organization thus far attained in the animal kingdom. If this particular type had not chanced to be tried, some other would have stood highest, but it is as likely to have been a still better one as to have been a poorer one for the purpose. If the planet Mars is really the home of living beings the chances of the vertebrate type of structure occurring there are only as one to infinity. Yet some superior type may be developed there. And if there be on that planet or anywhere else in the solar system or in the universe a master being related to other beings in any such way as man is related to the other living creatures on this earth, the chances are again infinity to one against his possessing the form or any of the leading physical attributes of human beings.

All this may at first sight look like wild utopian speculation. But its utility does not lie in any knowledge it yields as to the inhabitants of other planets. It lies in teaching the great lesson that no knowledge of anything can be gained by speculation, and that our only knowledge consists in the actual investigation of facts that lie within our reach. We must study the tangible, visible, demonstrable world and find out what it contains. There is no telling what we shall find. No preconceived notions of what we ought to find, much less of what we ought not to find, must influence the quest for truth. This is not, however, to discourage the use of hypotheses. They are the searchlights of science. But their use requires due caution, and a hypothesis must not be confounded with a thesis.

Now, while it is true that all those aggregations of cosmic elements that give multiplicity and variety to the content of the uni-

verse are in the sense explained wholly fortuitous and might as well have all been different from what they are, it is a legitimate question to inquire whether there remains anything which is not thus fortuitous, and which must in the nature of things be what it is. And we find that there are such things. There are essentials as well as accidents, but they belong to a different category. If we examine the matter closely, we will see that all the cases considered come under the head of *form*—worlds, plants, animals, men. But there is another great class of cases which fall under the head of *forces* or principles, and these when carefully examined are found not to be variables but constants—the constants of nature. By this I do not mean that they always exist at all times and places, although this is probably true of the universal gravitant and radiant forces, of which, indeed, all the other forms of energy are doubtless special conditions. I refer in general to what is known as the principle or law of evolution, and in particular to the three latest phases of that law which are called respectively, Life, Feeling and Thought. For while the forms through which these modes of energy are manifested may vary to any required extent, I cannot conceive that the attributes themselves could under any circumstances be other than they are. For example, while the fancied inhabitants of Mars might all differ in every other particular from those of this earth, it is impossible to conceive them as not endowed with life at least, although we can suppose them devoid of feeling in the same sense that we conceive plants to be. But if we imagine them to have advanced even to the lowest animal stage we are obliged to endow them with feeling, consciousness, will. And when we speak of a remote planet being “inhabited,” although we can abstract from those inhabitants every physical character that belongs to man and conceive them as dragons, or satyrs, or monsters of any form, we cannot imagine them devoid of reason and intelligence in addition to the attributes of life and sensibility.

Coming back to earth and confining ourselves to what we actually know, we thus see that three great steps in evolution have been taken since the surface of our globe became firm

enough and cool enough to render the first one possible. I call these the great cosmical *crises* of the earth's history—the origin of life, of feeling or consciousness, and of intellect or reason. These have occurred in this order at different geologic epochs, and certainly with an enormous interval between the second and third. The forms through which the first and second have manifested themselves—the plants and animals—are innumerable. That through which the last has chiefly manifested itself is man, a single species of the animal kingdom. And it is altogether probable that any planet, in its progress from a semi-nebulous state to an encrusted globe, would evolve the structures necessary to the exhibition of these three forms of cosmic energy, although, as already remarked, the organs and organisms manifesting them might have no external resemblance to those with which we are acquainted.

We thus arrive, after threading the vast mazes of cosmic evolution, at man, the only being known to us who is endowed with all three of the powers described, the only self-conscious, rational and intelligent product of nature. We find him to be also a social being. The question therefore naturally arises, Is sociability a third and still higher form of storing and expending cosmic energy? There are objections to this view, the principal one being that certain forms of sociability appear among creatures to which intelligence cannot be imputed, not merely among many of the higher mammals and other vertebrates, but notably among insects. Here instinct seems to have brought about the same general economic system that has resulted in part at least from rational calculation in man. But this question belongs more properly to a future paper and is only raised here as a natural sequel to the broader problems that we have been discussing. It is only by means of such a complete orientation of the mind that the true relations subsisting between sociology and kindred sciences can be clearly and correctly perceived, and these wider aspects of the subject belong preëminently to social philosophy.

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